Panel of engineering experts concur with current investigation findings at Howard Hanson Dam

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SEATTLE -- Since the January announcement that Howard Hanson Dam would have a lower operational capacity to hold back flood waters from the Green River Valley, engineers at the project have been working fervently to investigate every possible cause of concern.

The latest development is that an external panel of world-class engineering experts has reviewed completed analyses and ongoing plans by the U.S. Army Corps of Engineers, Seattle District. The expert panel has supplied the Howard Hanson technical team with an assessment, which agrees with many evaluations and measurements, as well as providing opinions and other considerations for the engineers to incorporate as they continue the investigation process.

"The data we gather will help to determine how the right abutment of Howard Hanson Dam will behave, and will help feed into our strategy for operations in the future," said Corps Dam Safety Program Manager, Rob Romocki. "Knowing that outside experts, who are not looking at this situation day in and day out, agree with our methods, conclusions and future investigative steps is reassuring to both our technical team and the public at large."

As the summer conservation pool rose to 1,147 feet above sea level this week, around-the-clock staffing and monitoring of the project began. Meanwhile data will be recorded to compare the behavior of the right abutment today in contrast to previous years. Additionally, more dye tests are being conducted and will be done again as the conservation pool is raised higher to determine if or where there are potential transport pathways through the abutment. These types of tests and analysis will be done again at a pool elevation of 1,157 feet, which engineers expect to reach sometime mid to late May.

The initial concern of two depressions that were found – one immediately as the climax of the January storm was waning, and the second a few weeks later – has been addressed.

"What we have found so far indicates that we may have isolated the reasons the two depressions formed, but we still need to evaluate the extent and effects of the seepage issues within the abutment, particularly in areas not protected by the existing grout curtain," said Col. Anthony Wright, Seattle District Commander.

Corps engineers have begun design of short-term measures that they hope to have in place before Nov. 1 to increase the Corps' confidence in using the dam for flood water storage. Potential projects include a low permeability barrier within the abutment to greatly reduce seepage through the area of concern, and additional drains extending from the existing drainage tunnel. However, the Corps cautions that a long-term solution is still perhaps a few flood seasons away.

"While the dam does not present an immediate danger of failing, there is an increased risk to the downstream communities for higher flood levels until such time that the seepage issues with the right abutment have been resolved," Wright said.

In the interim, the Corps has been working closely with King County and the downstream cities of Auburn, Kent, Renton and Tukwila to prepare for flood season, should higher-than-standard flows be necessary from the dam, including a recent meeting of all emergency managers reviewing potential impact scenarios.

Information on flood preparedness may be found at:
http://www.kingcounty.gov/safety/prepare/FloodPlan_GRiverBasin.aspx

Updates regarding the dam may be found at: http://www.nws.usace.army.mil .

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